Appl. No. 09/848,004
Amdt. dated March 17, 2004
Reply to Office Action of December 30, 2003

<center>Remarks</center>

The present request for reconsideration responds to the Official Action mailed December

30, 2003. The Official Action rejected claims 1-11 and 19-30 under 35 U.S.C. §103(a) based on

Roberts et al. U.S. Patent No. 6,476,930 ("Roberts") in view of Boss U.S. Patent No. 6,568,675

("Boss") and further in view of Theimer et al. U.S. Patent No. 5,627,517 ("Theimer"). This sole

ground for rejection is addressed below following a brief discussion of the present invention to

provide context.

Claims 12-18 have been previously withdrawn without prejudice due to a restriction

requirement. Claims 1-11 and 19-30 are presently pending.

The Present Invention

The present invention relates generally to techniques for use of wireless labels to display

information relating to documents in a document processing center. A plurality of document

processing trays, also referred to as receptacles, each have an affixed label for receiving and

displaying messages which are received wirelessly from a central communication interface. The

messages provide information relating to documents to be placed within or contained within the

trays in order to improve the efficiency of operators handling the trays. When a group of

documents undergoes initial processing by a document processing station, the group of documents

is typically sorted into a plurality of sorting locations. Each of the sorting locations has an

associated tray and label and the documents within the sorting location are placed within their

respective tray.

An exemplary embodiment of the present invention is discussed at page 9, line 17 et seq.

in terms of a financial document processing environment, such as processing bank deposits and

<center>2</center>

the items making up the deposits such as deposit slips and checks. The financial document

processing environment may include a number of stages for processing the deposits. The stages

may include machine processing stages such as capturing, encoding, and endorsing of deposits,

and a movement stage of transporting deposits from one location to another. Deposits are

typically processed in multiple passes through the document processing system, and not all of the

different stages are performed during each pass. Between passes through the document processing

system, the items are sorted and placed in trays, each having an affixed label. The stages may

require human intervention, such as routing by an operator of a newly loaded bin to another

processing system. The affixed labels advantageously facilitate such human intervention, for

example, by displaying instructions to the operator on where to route the newly loaded bin.

Messages relating to the deposits within each tray are wirelessly transmitted to each label

which displays the received message for its tray. The message may provide information such as

indications of the large group, entry, and sorting location to which the deposits belong, and the

endpoint of the deposits. The displayed message may also provide information relating to the

processing priority of the deposits. During a balancing stage of a financial transaction, an operator

may use the information displayed to find deposits which were indicated as not being balanced,

for example. As processing continues, new messages are transmitted that are appropriate to the

processing stage of the deposits. If deposits are sorted into new sorting locations, new

associations between the trays and the sorting locations are established and the deposits are placed

in and associated with trays and labels associated with the new sorting locations.

The Art Rejection

Claims 1-11 and 19-30 were rejected under 35 U.S.C. §103(a) based on Roberts in view of

Boss, and further in view of Theimer. As addressed in greater detail below, the references do not

3

support the Official Action's reading of them and the rejections should be reconsidered and

withdrawn. Further, the Applicants do not acquiesce in the analysis of Roberts, Boss, and

Theimer made by the Official Action and respectfully traverse both the Official Action's rejection

and supporting analysis.

Roberts, entitled "Output Processing and Merging of Hybrid Electronic Documents,"

addresses a system for identifying color and non-color pages in an electronic document, routing

the color pages to a color printer 110, routing the non-color pages to a non-color printer 112, and

finally merging the printed pages as a merged physical document 116. See col. 2, lines 48-65 of

Roberts. To merge the printed pages, Roberts' system includes printing a page order information

page for each set of pages sent to the two printers. Then Roberts' system automatically merges the

two sets of pages by reading the page order information page. See Roberts, col. 2, lines 12-14 and

18-22. During the merge process illustrated in Fig. 7 of Roberts, the merging mechanism 700

temporarily stores the printed non-colored pages in an input tray 706 and temporarily stores the

printed colored pages in input tray 708. In response to the elements identified as reader processes

710 and 712, the merge mechanism 700 automatically merges the documents into a merge tray

720. Operation of Roberts' automatic merge mechanism does not involve human intervention and

thus does not address the problem addressed by the present invention.

In contrast with Roberts, the present invention addresses a document processing center

having document processing stations and a plurality of receptacles for storing documents between

operations of the document processing stations. Each receptacle has an attached electronic label.

In some situations, an operator has to manually route a receptacle containing documents after a

stage of processing to the same or a different document processing station. Refer to page 13, lines

2-18 of the present application for an exemplary financial document processing system requiring

4

human intervention. During the balancing stage of reconciling accounts, if an item is not in

balance, a human operator needs to review the documents comprising the item to determine the

reason for the discrepancy. In order to do this, the operator needs to be directed to the tray where

the item is located. When an out of balance item is detected, the operator is suitably advised of the

entry number and pocket number containing the item suitably through a display 406. The entry

number and pocket number are already displayed on the electronic labels affixed to the receptacles

to allow easy location of the item that is out of balance for operator access.

Claim 1 recites

> a first document processing system comprising:
> a plurality of document processing stations for performing operations on
> documents and processing information relating to documents;
> a plurality of receptacles for storing documents between operations;
> a communication interface for receiving information produced by the
> processing stations and producing messages relating to the information; and
> a plurality of electronic labels receiving the messages wirelessly from the
> communication interface, each of the labels being affixed to one of the receptacles,
> each of the labels being operative to display messages addressed to the label.
> (emphasis added)

Roberts does not teach and does not suggest a plurality of electronic labels which "display

messages addressed to the label." Roberts also does not teach and does not suggest a plurality of

document processing stations as claimed. Roberts teaches printing electronic documents which

contain color and non-color pages. Roberts also does not teach and does not suggest a plurality of

receptacles for storing documents between operations as claimed. Roberts teaches storing the

color and non-color pages separately in input trays until they are merged automatically. Further,

Roberts' input trays do not have an electronic label attached for displaying messages as claimed.

Roberts does not teach and does not suggest receiving information produced by the processing

stations and producing messages relating to the information as claimed.

5

Boss fails to cure the deficiencies of Roberts as a reference. Boss addresses a multiple bin output device for use with an image forming device. The output device contains removable bins configured to receive sheets that are output by the image forming device. The output device can move a selected bin into position to receive a sheet, or the device can guide a sheet into a selected removable but otherwise stationary bin. Boss, col. 1, lines 30-36. Referring to col. 3, lines 31-36, upon which the Official Action relies, Boss suggests electronic identification tags:

> ... to store a variety of information locally on the bins. The tags, for example, could store document finishing instructions for finishing operations at a location remote from the printer. In such cases, the document is printed and output to the designated bin and finishing instructions are simultaneously communicated to the bins electronic tag. When the bin is later moved to and installed in a finishing device, the finishing instructions are automatically communicated from the bin tag to the finishing device. (emphasis added) Boss, col. 3, lines 58-65.

Boss's electronic tags merely store information which is communicated back to a finishing device. Boss's automated approach to merging printouts of electronic documents does not generate or resolve the problem addressed by the present invention because there is no need for human intervention and human reading of electronic labels. Consequently, there is no motivation to combine with Boss's system an electronic tag which displays information.

Unlike Boss and Roberts, the present invention addresses advantageous approaches to the reduction of operator error by employing electronic labels on receptacles and displaying messages to the operator on what to do next with the trays, if anything. Moreover, messages on these electronic labels provide operators with indications for locating specific documents. Since these trays are moveable, a further advantage according to the present invention is that the electronic labels communicate through a wireless channel to the communication interface. Boss and Roberts, separately or in combination, do not teach and do not suggest an electronic label "operative to display messages addressed to the label" as claimed in claims 1, 19, and 30. Boss

6

merely suggests storing information in electronic tags for subsequent processing by an automated mechanism.

Theimer fails to cure the deficiencies of Roberts and Boss. Theimer addresses a freight tracking and routing system to track each individual package having a tag physically attached thereto. Theimer, Abstract. Referring to col. 5, lines 8-11 upon which the Official Action relies, Theimer's "intelligent tag" retains the desired destination information of the package. Like Boss, the "intelligent tag" merely stores information without providing any means of displaying a message.

Roberts, Boss, and Theimer, separately or in combination, do not teach and do not suggest "a plurality of electronic labels receiving the messages wirelessly from the communication interface, at least one of the plurality of electronic labels being affixed to each receptacle, each of the labels being operative to display messages addressed to the label" as claimed in claims 1, 19, and 30.
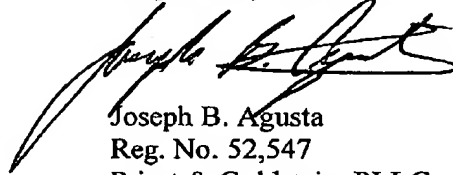
Nothing in the cited references indicates a recognition of the problem of how to more effectively communicate with operators within a document processing center, which is advantageously addressed by the present invention. Further, nothing in the cited references provides or suggests a structure which would solve this problem in the manner claimed by the present invention. The claims of the present invention are not taught, are not inherent, and are not obvious in light of the art relied upon.

7

Appl. No. 09/848,004
Amdt. dated March 17, 2004
Reply to Office Action of December 30, 2003

Conclusion

All of the presently pending claims define over the relied upon art. The present rejections

should be withdrawn and the claims promptly allowed.

Respectfully submitted,

Joseph B. Agusta
Reg. No. 52,547
Priest & Goldstein, PLLC
5015 Southpark Drive, Suite 230
Durham, N.C. 27713-7736
(919) 806-1600

8